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Reg. No. :

D 2222

Q.P. Code : [D 07 PES 05]

(For the candidates admitted from 2007 onwards)

M.Sc. DEGREE EXAMINATION, MAY 2014.

Second Year

Environmental Science

MANAGEMENT OF ENERGY RESOURCES

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

(5 × 20 = 100)

1. Write an account on the first and second laws of thermodynamics.
2. Gibbs and Helmholtz free energy- Explain.
3. Give an account on solar energy conversion to heat and electricity.
4. Describe the environmental problems involved in petroleum extraction and utilization.
5. Energy from Biomass and Biodiesels- Explain

6. What are the sources, classification and characterization of biomass and solid wastes?
 7. List the importance of using alternate energy sources for sustainable environment.
 8. Explain in detail on environmental issues related to radioactive materials. Suggest some measures for safe disposal.
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Reg. No. :

D 2223

Q.P. Code : [D 07 PES 06]

(For the candidates admitted from 2007 onwards)

M.Sc. DEGREE EXAMINATION, MAY 2014.

Second Year

Environmental Science

NATURAL RESOURCES AND CONSERVATION

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

(5 × 20 = 100)

1. Give an account on the sinks of atmospheric constituents and their importance.
2. Write an account on water conservation and management.
3. Elaborately discuss on Soil resources distribution and related problems.
4. Describe in detail on terrestrial and marine mineral resources.

5. Discuss the environmental implications of mineral utilization and extraction.
 6. Write an account on the anthropogenic impact on endangered and extinct species.
 7. Describe the importance of ecological hotspots and their conservation.
 8. Justify the need for gene bank towards conservation of biological species.
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Reg. No. :

D 2224

Q.P. Code : [D 07 PES 07]

(For the candidates admitted from 2007 onwards)

M.Sc. DEGREE EXAMINATION, MAY 2014.

Second Year

Environmental Science

ENVIRONMENTAL ENGINEERING

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

(5 × 20 = 100)

1. Give an account on the principle and design of plain sedimentation tanks.
2. Reverse Osmosis – Explain.
3. Activated sludge and Oxidation ditch – Explain
4. What are the principles involved in anaerobic treatment of waste water?
5. Give a brief account on design of trickling filters

6. Describe the principles and design for sludge treatment, digestion and thickening.
 7. Write an account on the following :
 - (a) Settling chambers
 - (b) Electrostatic Precipitators
 - (c) Cyclone collectors.
 8. Discuss the design parameters involved in
 - (a) Equalization tank
 - (b) Rectangular and Circular sedimentation tanks.
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Reg. No. :

D 2225

Q.P. Code : [D 07 PES 08]

(For the candidates admitted from 2007 onwards)

M.Sc. DEGREE EXAMINATION, MAY 2014.

Second Year

Environmental Science

ENVIRONMENTAL IMPACT ASSESSMENT

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

(5 × 20 = 100)

1. What are the processes involved in EIA report preparation? Explain.
2. Give the importance of field survey and data collection for EIA.
3. Briefly discuss the environmental indicators of water quality.
4. Explain the methods of Assessment of natural resources utilization.

5. Economic externalities – Explain.
 6. Environmental quality as a public welfare social function – Report.
 7. Cleaner production technologies – Discuss.
 8. Write an account on Coastal regulation zone notification 1991.
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